

Amendments to the Specification:

Please amend the following paragraph beginning at page 1, line 17 as follows:

C¹

One type of bipolar transistor, known as a heterojunction bipolar transistor

5 (HBT), offers advantages over conventional junction bipolar transistors by providing a bandgap difference between its base and emitter regions. In an NPN transistor, this bandgap difference restricts hole flow from base to emitter, which, in turn, improves emitter-junction efficiency and current gain. The improved emitter injection efficiency allows the use of low resistivity base regions and high resistivity emitter regions to create

10 fast devices without compromising other device parameters. Thus, HBTs can realize high current gain while simultaneously having a low base resistivity and low emitter base junction capacitance.

Please amend the following paragraph beginning at page 3, line 8 as follows:

C²

15 In Figure 1(d), the resist layer is removed and sidewall formations 14 and 15 made of an oxide are developed on stack 13. These sidewall portions function as masking layers for a subsequent implant step, which involves implanting a p-type dopant to a depth ~~which~~ that includes the SiGe layer 6. These implanted ions form extrinsic p+ ~~implants~~ implant regions 16 and 17.

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Please amend the following paragraph beginning at page 15, line 14 as follows:

C³

The conventional self-aligned transistor has the extrinsic base self-aligned to the emitter opening level because the emitter pedestal sidewall provides a fixed symmetric spacing away from the emitter region. In contrast, the present invention has an extrinsic

25 base aligned directly to the emitter ~~polysilicon~~ polysilicon but not necessarily directly aligned to the emitter opening because the lithographic overlay of the emitter polysilicon and emitter opening is never ideal due to wafer, lens, and tool distortions. Therefore, the present invention is a non-self aligned transistor compared to the conventional self-aligned transistor.

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